

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450AF/2854
Docket No.: 600.1118
Date: January 20, 2004In re application of: **VROTACOE, et al.**

Serial No.: 09/767,108

Filed: January 22, 2001

For: **FLOW-RESTRICTED PRINTING CYLINDER FOR A REMOVABLE PRINTING SLEEVE**

Sir:

Transmitted herewith is an **APPELLANT'S BRIEF UNDER 37 C.F.R. 1.192** filed in Triplicate (15 pages each) in the above-identified application.

- ☐ Small entity status under 37 C.F.R. 1.9 and 1.27 has been previously established.
☐ Applicants assert small entity status under 37 C.F.R. 1.9 and 1.27.
☒ No fee for additional claims is required.
☐ A filing fee for additional claims calculated as shown below, is required:

FOR:	(Col. 1)	(Col. 2)		SMALL ENTITY		OR	LARGE ENTITY	
	REMAINING	HIGHEST		RATE	FEE		RATE	FEE
	AFTER	PREVIOUSLY	PRESENT					
	AMENDMENT	PAID FOR	EXTRA					
TOTAL CLAIMS	* Minus**	=	0	x \$	9		x \$	18
INDEP. CLAIMS	* Minus***	=	0	x \$	40		x \$	80
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+	\$135		+	\$270

TOTAL: \$ OR TOTAL: \$

- * If the entry in Co. 1 is less than the entry in Col. 2, write "0" in Col. 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.
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- ☐ Also transmitted herewith are:
☐ Petition for extension under 37 C.F.R. 1.136
☐ Other:
- ☒ Check(s) in the amount of **\$330.00** is/are attached to cover:
☐ Filing fee for additional claims under 37 C.F.R. 1.16
☐ Petition fee for extension under 37 C.F.R. 1.136
☒ Other: Appeal Brief Fee
- ☒ The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.
- ☒ Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.
- ☒ Any patent application processing fees under 37 C.F.R. 1.17.
- ☒ Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.

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I hereby certify that the documents referred to as attached therein and/or fee are being deposited with the United States Postal Service as "first class mail" with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on January 20, 2004.
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BY:
Jan Decker



[600.1118]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re: Application of: James Brian VROTACOE, et al.
Serial No.: 09/767,108
Filed: January 22, 2001
For: FLOW-RESTRICTED PRINTING CYLINDER
FOR A REMOVABLE PRINTING SLEEVE
Art Unit: 2854
Examiner: Anthony Ngyuen

Mail Stop: APPEAL
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 20, 2004

APPELLANTS' BRIEF UNDER 37 C.F.R. § 1.192

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated June 19, 2003 in this application. An original and two copies of this brief are submitted herewith. The statutory fee of \$330.00 is paid concurrently herewith.

1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business at Kurfuersten-Anlage 52-60, D-69115 Heidelberg, Germany, the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned by inventor James Brian

Vrotacoe to Heidelberger Druckmaschinen AG. The assignment was recorded on April 12, 2001 at reel 011690/ frame 0618.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 19 are pending. Claims 1 to 5 and 7 to 19 have been finally rejected as per the Final Office Action dated June 19, 2003. Claim 6 was objected but has been indicated as allowable.

The rejection to claims 1 to 5 and 7 to 19 thus is appealed. A copy of appealed claims 1 to 5 and 7 to 19 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS AFTER FINAL

A Response to the Final Office Action was filed on September 19, 2003 and was entered by the Advisory Action of October 9, 2003.

5. SUMMARY OF THE INVENTION

The present invention provides a printing cylinder (e.g. 10 in Fig. 1, see, e.g., specification at page 4, line 30) for accepting an axially-removable printing sleeve (e.g. 12 in Fig. 1, see, e.g., specification at page 4, line 27) comprising: a cylinder body (e.g. 10 in Fig. 1, see, e.g., specification at page 4, line 30) having an outer surface (see, e.g., specification at page 6, line 13), the outer surface (see, e.g., specification at page 6, line 13) having at least one hole (e.g. 16 in Fig. 2, see, e.g., specification at page 5, line 15); and a supply line (e.g. 70 in Fig. 4a, see, e.g., specification at page 5, line 21) in the cylinder body (e.g. 10 in Fig. 1, see, e.g., specification at page 4, line 30) for supplying fluid to the at least one hole (e.g. 16 in Fig. 2, see, e.g., specification at page 5, line 15), the supply line (e.g. 70 in Fig. 4a, see, e.g., specification at page 5, line 21) having at least one flow restrictor (e.g. 78 in

Fig. 4a, see, e.g., specification at page 5, line 20) altering fluid flow as a function of the at least one hole (e.g. 14 in Fig. 2, see, e.g., specification at page 5, line 13) being covered by an axially-removable printing sleeve (e.g. 12 in Fig. 1, see, e.g., specification at page 5, line 3).

In addition, the restrictor may create vortices as shown in Fig. 4b.

As shown in Fig. 3, and described in the specification at page 6, lines 4 to 12, there also may additional sets of holes 114, 214, with holes 214 being nearer the gear side than the work side.

An offset lithographic printing press is provided with two blanket cylinders 10, 59 and blankets 12, 62 is shown in Fig. 1 and described on page 4, lines 25 to page 5, line 2. (See preliminary amendment filed February 28, 2002).

Fig. 3 shows three printing sleeves 12, 212, 312 which can fit over cylinder 10, as described in the specification at page 6, lines 4 to 12.

A method of placing and removing a printing sleeve 12 over cylinder 10 is described in the specification at page 5, lines 24 to 32 in which fluid pressure is applied to an inside of the printing sleeve 10 located on a printing cylinder through the holes 14 and through the other holes 16; the printing sleeve is slid in a direction of the work side end of the printing cylinder; and the flow through the other holes 16 is automatically restricted through the other holes 16 when the printing sleeve no longer is located over the other holes.

6. ISSUES

Whether claims 1 and 2 should be rejected under 35 U.S.C. 102(b) as being anticipated by Fellows. Whether claims 3 to 5 and 7 to 19 should be rejected under 35 U.S.C. 103 as being unpatentable over Fellows in view of Kay.

7. GROUPING OF CLAIMS

The appealed claims are grouped as follows:

Group I: Claims 1, 2, 4 and 7 directed to a printing cylinder for accepting an axially-removable printing sleeve.

Group II: Claim 3, dependent from claim 1 and further reciting that the flow

restrictor creates vortices when the at least one hole is uncovered.

Group III: Claim 5, dependent from claim 4 and reciting that the plurality of other holes include another supply line having at least one other flow restrictor for the other holes.

Group IV: Claim 8 dependent on claim 1 and further reciting that the at least one hole includes a plurality of holes and the at least one flow restrictor includes a flow restrictor for each hole.

Group V: Claim 9 dependent on claim 8 and further reciting that the outer surface has a second set of holes for a second axially-removable printing sleeve, the second set of holes having second flow restrictors.

Group VI: Claim 10 dependent on claim 1 and reciting wherein the printing cylinder is a blanket cylinder.

Group VII: Claims 11 and 12 directed to a printing press.

Group VIII: Claims 13 and 14 dependent on claim 11 and wherein the first printing cylinder is a blanket cylinder or the printing press is an offset lithographic printing press.

Group IX: Claim 15 directed to a printing press with two printing sleeves on one cylinder.

Group X: Claim 16 directed to a method for axially removing a printing sleeve over a printing cylinder.

Group XI: Claim 18 dependent on claim 16 wherein the printing sleeve is a blanket.

Group XII: Claim 19 dependent on claim 16 and further comprising sliding an additional printing sleeve in the direction of the work side end.

8. ARGUMENTS

Group I:

Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Fellows.

Fellows discloses a flexographic printing roll. A sleeve 17 is slid over a tube 10 having air holes 10c all first plugged with plugs 10e. A supply of compressed air is connected to a union 16e, and the plugs are removed either by the sleeve 17 or manually. See Fellows column 3, lines 21 to 39. When the sleeve is fully fitted on the tube 10 the compressed air supply is removed from the union 16e. See Fellows column 3, lines 46 to 50.

Claim 1 recites a printing cylinder for accepting an axially-removable printing sleeve comprising:

a cylinder body having an outer surface, the outer surface having at least one hole; and

a supply line in the cylinder body for supplying fluid to the at least one hole, the supply line having at least one flow restrictor altering fluid flow as a function of the at least one hole being covered by an axially-removable printing sleeve.

Claim 1 recites a “fluid restrictor.”

The Advisory Action identified the supply line as 16 and the restrictor as union 16e, presumably though it meant to identify the passageway 16d as the supply line, as passageway 16 does not have union 16e. The hole is presumably 10c in Fellows.

Union 16e of Fellows is a connection device for providing air to the interior of tube 10. As admitted in the Advisory Action, the air from union 16e actually flows through union 16e into a larger diameter passageway 16d, and thus union 16e in no way restricts air from entering passageway 16d. Air in 16d flows in only one direction, and Fellows does not show at all that union 16e impedes or restricts the flow of air from the source of air input into union 16e, nor has the Office Action so asserted.

Without knowing anything about the air input into union 16e, it is impossible to assert that union 16e restricts flow, and thus assert that union 16e is a “flow

restrictor” as recited in claim 1. In fact union 16e seems clearly designed to aid flow and not to restrict it, as per definition of the word union.

The Advisory Action might be trying to assert that if union 16e were not present, air would flow more freely into passageway 16d. This is false: without union 16e, no air would flow into passageway 16d of Fellows at all. Union 16e is a necessary part of the Fellows device to improve and create fluid flow, not restrict it.

Withdrawal of the rejection to claim 1 and claims 2, 4 and 7 is respectfully requested.

In addition, there is no disclosure in Fellows that the union 16e alters “fluid flow as a function of the at least one hole being covered by an axially-removable printing sleeve” as recited in claim 1.

Group II:

Claim 3 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 3 depends from claim 1 and further recites that the flow restrictor creates vortices when the at least one hole is uncovered.

Kay discloses a multi-tube flow restrictor having two operational possibilities: either no flow at all, or a restricted flow between inlet 16 and outlet 18 which aids in sound suppression. See column 3, lines 13 to 21 and column 4, lines 20 to 31 of Kay. Kay must *move* the valve member 36 to shut off flow.

In addition to the arguments with respect to claim 1 above, the Office Action has identified no proper motivation to replace the union 16e of Fellows with a flow restrictor of Kay, as the union 16e aims to prevent flow restriction.

Even if the restrictor of Kay were somehow combinable in the Fellows device (and there is no motivation or reason to do so, as the union of Fellows does not appear to create any issues, or pose any other problems requiring a flow restrictor, and it is not even clear how the combination would function), the claimed limitation of claim 1 that the restrictor “alters fluid flow as a function of the at least one hole being covered by an axially-removable printing sleeve” would not be met. There is no disclosure that flow through the Kay device would be restricted as a function of any positioning

of a sleeve over the first holes of Fellows, as the Kay device restricts flow as a function of the *intentional* movement of the valve member 36 and there is no indication that the covering of the holes in Fellows would alter any fluid flow in Kay at all, especially given the special plugs of Fellows.

Withdrawal of the rejection to claim 3 is respectfully requested.

Group III:

Claim 5 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 5 depends from claim 4 and recites that the plurality of other holes include another supply line having at least one other flow restrictor for the other holes.

Neither Fellows nor Kay show another flow restrictor for other holes, and this is not a mere duplication of elements, as it requires the structural limitation that the other flow restrictor be for the other holes. Neither Fellows nor Kay shows this limitation. Fellows shows a plurality of holes already, but only one supply line and one union 16e. One of skill in the art would not have found it obvious to provide a second union 16e, as duplication of the air supply would add complexity and parts.

Withdrawal of the rejection to claim 5 is respectfully requested for this reason as well as for the reasons discussed with respect to claim 1 and with respect to the lack of motivation to combine Fellows and Kay.

Group IV:

Claim 8 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 8 depends from claim 1 and further recited “that the at least one hole includes a plurality of holes and the at least one flow restrictor includes a flow restrictor for each hole.”

Neither Fellows nor Kay shows a flow restrictor for each of a plurality of holes. In fact Fellows teaches away from this limitation by providing a single union 16e (and no restrictors) for all holes.

Withdrawal of the rejection to claim 8 is respectfully requested as well as for the reasons discussed with respect to claim 1 and with respect to the lack of motivation to combine Fellows and Kay.

Group V:

Claim 9 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 9 depends on claim 8 and further recites that the outer surface has a second set of holes for a second axially-removable printing sleeve, the second set of holes having second flow restrictors.

Neither Fellows nor Kay shows holes for a second axially removable printing sleeve. This is a novel construction shown in Fig. 3 of the present application, and there is no teaching or motivation in Fellows or Kay to provide such a feature, of a second set of flow restrictors. Fellows only shows holes for one sleeve.

Withdrawal of the rejection to claim 9 is respectfully requested as well as for the reasons discussed with respect to claim 1 and with respect to the lack of motivation to combine Fellows and Kay.

Group VI:

Claim 10 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 10 depends from claim 1 and reciting wherein the printing cylinder is a blanket cylinder.

Fellows is a flexographic printing roll, and not a blanket cylinder, which is the transfer cylinder in an offset printing press, as shown in Fig. 1 of the present invention.

It would not have been obvious to one of skill in the art to alter the flexographic printing sleeve of Fellows into a blanket, as these are for different types of printing processes.

Withdrawal of the rejection to claim 10 is respectfully requested as well as for the reasons discussed with respect to claim 1 and with respect to the lack of motivation to combine Fellows and Kay.

Group VII:

Claims 11 and 12 were rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 11 recites a printing press comprising:

- a first printing cylinder having at least one external hole and a first flow restrictor;
- a first axially removable printing sleeve fitting over the first printing cylinder;
- an additional printing cylinder having at least one second external hole and a second flow restrictor;
- an additional axially removable printing sleeve fitting over the additional printing cylinder; and
- a fluid supply source for supplying pressure to the first and second external holes;

the first flow restrictor restricting flow through the external hole as a function of an axial position of the first printing sleeve with respect to the first printing cylinder and the second flow restrictor restricting flow through the second external hole as a function of an other axial position of the additional printing sleeve with respect to the additional printing cylinder.

These limitations are not mere duplications of features found in claim 1 (as asserted in the final office action), but are structural limitations describing a novel printing press: one fluid source provides air to two separate cylinders each having a flow restrictor. Were one of skill in the art to have duplicated Fellows, separate fluid sources would have been provided for each cylinder.

Neither Fellows nor Kay shows these limitations and withdrawal of the rejection to claim 11 is respectfully requested, in addition to the reasons with respect to the flow restrictor limitation given with respect to claim 1 above, and the lack of motivation for combining Fellow and Kay as discussed above.

Group VIII:

Claims 13 and 14 were rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claims 13 and 14 depend on claim 11 and recite wherein the first printing cylinder is a blanket cylinder or the printing press is an offset lithographic printing press.

Neither Fellows nor Kay discloses that the cylinder can be a blanket cylinder, which is part of an offset lithographic printing press. Fellows is for flexographic printing, not for offset printing.

Withdrawal of the rejection to claims 13 and 14 is respectfully requested for this reason as well as for the reasons discussed with respect to claim 11.

Group IX:

Claim 15 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 15 recites a printing press comprising:

a printing cylinder having an outer surface with at least one first external hole with a first flow restrictor, and at least one second external hole with a second flow restrictor,

a first axially removable printing sleeve fitting over the printing cylinder so as to cover the at least one first external hole; and

a second axially removable printing sleeve fitting over the printing cylinder so as to cover the at least one second external hole.

Neither Fellows nor Kay discloses two sleeves on one cylinder. This is not a mere duplication of elements: if Fellows were duplicated, two separate cylinders would be provided for two sleeves. What is claimed is two printing sleeves on one cylinder, which would not have been obvious to one of skill in the art after reviewing Fellows and Kay.

Withdrawal of the rejection to claim 15 is respectfully requested.

Group X:

Claim 16 and 17 were rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 16 recites a method for axially removing a printing sleeve over a printing cylinder, the printing cylinder having a work side end and a gear side end and having holes at a work side end and having other holes between the holes at the work side end and the gear side end comprising the steps of:

applying fluid pressure to an inside of a printing sleeve located on a printing cylinder through the holes and through the other holes;

sliding the printing sleeve in a direction of the work side end of the printing cylinder; and

automatically restricting flow through the other holes when the printing sleeve no longer is located over the other holes.

Fellows clearly does not automatically restrict flow through the other holes when the printing sleeve is no longer located over the other holes, since special plugs 10e are provided which must be manually placed over the holes. There is absolutely no teaching or motivation in the Kay reference to do away with these plugs or substitute a restrictor for the union 16e of Fellows, which union 16e is designed to provide free flow of air, and not to restrict air.

Withdrawal of the rejection to claims 16 and 17 is respectfully requested.

Group XI:

Claim 18 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 18 depends on claim 16 and recites wherein the printing sleeve is a blanket.

Neither Fellows nor Kay discloses that the sleeve can be a blanket for a blanket cylinder, which is part of an offset lithographic printing press. Fellows is for flexographic printing, not for offset printing.

Withdrawal of the rejection to claims 18 is respectfully requested for this

reason as well as for the reasons discussed with respect to claim 16.

Group XII:

Claim 19 was rejected under 35 U.S.C. 103 as unpatentable over Fellows in view of Kay.

Claim 19 depends on claim 16 and further recites sliding an additional printing sleeve in the direction of the work side end.

Neither Fellows nor Kay discloses sliding two sleeves on one cylinder for this reason as well as for the reasons discussed with respect to claim 16.

Withdrawal of the rejection to claim 19 is respectfully requested.

Respectfully submitted,

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APPENDIX A:
PENDING CLAIMS 1 to 5 and 7 to 19 OF U.S.
APPLICATION SERIAL NO. 09/767,108

1. (previously presented) A printing cylinder for accepting an axially-removable printing sleeve comprising:
 - a cylinder body having an outer surface, the outer surface having at least one hole;
 - and
 - a supply line in the cylinder body for supplying fluid to the at least one hole, the supply line having at least one flow restrictor altering fluid flow as a function of the at least one hole being covered by an axially-removable printing sleeve.
2. (original) The printing cylinder as recited in claim 1 wherein the fluid is air.
3. (original) The printing cylinder as recited in claim 1 wherein the flow restrictor creates vortices when the at least one hole is uncovered.
4. (previously presented) The printing cylinder as recited in claim 1 wherein the cylinder body has a work side end and a gear side end, the outer surface having a plurality of other holes located axially between the at least one hole and the work side end.
5. (original) The printing cylinder as recited in claim 4 wherein the plurality of other holes include another supply line having at least one other flow restrictor for the other holes.
7. (previously presented) The printing cylinder as recited in claim 1 wherein the cylinder body has a work side end and a gear side end, at least one hole being spaced closer to the gear side end than the work side end.
8. (original) The printing cylinder as recited in claim 1 wherein the at least one hole includes a plurality of holes and the at least one flow restrictor includes a flow restrictor for each hole.

9. (original) The printing cylinder as recited in claim 8 wherein the outer surface has a second set of holes for a second axially-removable printing sleeve, the second set of holes having second flow restrictors.

10. (original) The printing cylinder as recited in claim 1 wherein the printing cylinder is a blanket cylinder.

11. (original) A printing press comprising:

a first printing cylinder having at least one external hole and a first flow restrictor;

a first axially removable printing sleeve fitting over the first printing cylinder;

an additional printing cylinder having at least one second external hole and a second flow restrictor;

an additional axially removable printing sleeve fitting over the additional printing cylinder; and

a fluid supply source for supplying pressure to the first and second external holes;

the first flow restrictor restricting flow through the external hole as a function of an axial position of the first printing sleeve with respect to the first printing cylinder and the second flow restrictor restricting flow through the second external hole as a function of an other axial position of the additional printing sleeve with respect to the additional printing cylinder.

12. (original) The printing press as recited in claim 11 wherein no valves are located between the first and second external holes.

13. (original) The printing press as recited in claim 11 wherein the first printing cylinder is a blanket cylinder.

14. (original) The printing press as recited in claim 11 wherein the printing press is an offset lithographic printing press.

15. (original) A printing press comprising:

a printing cylinder having an outer surface with at least one first external hole with a first flow restrictor, and at least one second external hole with a second flow restrictor,

a first axially removable printing sleeve fitting over the printing cylinder so as to cover the at least one first external hole; and

a second axially removable printing sleeve fitting over the printing cylinder so as to cover the at least one second external hole.

16. (previously presented) A method for axially removing a printing sleeve over a printing cylinder, the printing cylinder having a work side end and a gear side end and having holes at a work side end and having other holes between the holes at the work side end and the gear side end comprising the steps of:

applying fluid pressure to an inside of a printing sleeve located on a printing cylinder through the holes and through the other holes;

sliding the printing sleeve in a direction of the work side end of the printing cylinder; and

automatically restricting flow through the other holes when the printing sleeve no longer is located over the other holes.

17. (original) The method as recited in claim 16 wherein the automatically restricting step includes forming vortices in a supply line for the other holes.

18. (original) The method as recited in claim 16 wherein the printing sleeve is a blanket.

19. (original) The method as recited in claim 16 further comprising sliding an additional printing sleeve in the direction of the work side end.